Alpine ibex (Capra i. ibex) is not a reservoir for chlamydial infections of domestic ruminants and humans

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Key words
Alpine ibex, Switzerland, Chlamydophila abortus, abortigenic agent, interactions between wildlife and domestic ruminants

Aim of the study
The aim of the present study was to determine the prevalence of Chlamydia in Alpine ibex in Switzerland and particularly in Grisons, using sensitive and specific methods.

Material and methods
In total, 624 sera, 676 eye swabs, 84 organ samples and 51 faecal samples from 664 ibex were investigated. Serum samples were tested by two commercial ELISA kits specific for C. abortus. Eye swabs, organs and faecal samples were examined by a Chlamydiaceae-specific real-time PCR. Positive cases were further investigated by the ArrayTube (AT) microarray method for chlamydial species determination.

Results and significance
Of 624 serum samples investigated, 612 animals were negative, whereas nine sera (1.5%) reacted positively in one of the two tests and three sera showed an inconclusive result. Eye swabs of 7 out of 412 ibex (1.7%) were tested positive for Chlamydiaceae by real-time PCR. By AT microarray, C. pecorum was identified in two animals, C. pneumoniae was detected in one animal and a mixed infection with C. abortus and C. pecorum was found in four animals. Organs and faecal samples were all negative by real-time PCR analysis. In summary, we conclude that C. abortus is not a common infectious agent in the Swiss ibex population. To our knowledge, this is the first description of C. pneumoniae in ibex.

Publications, posters and presentations
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